

MARINE REVIEW.

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No. 1.

The Engineering Congress.

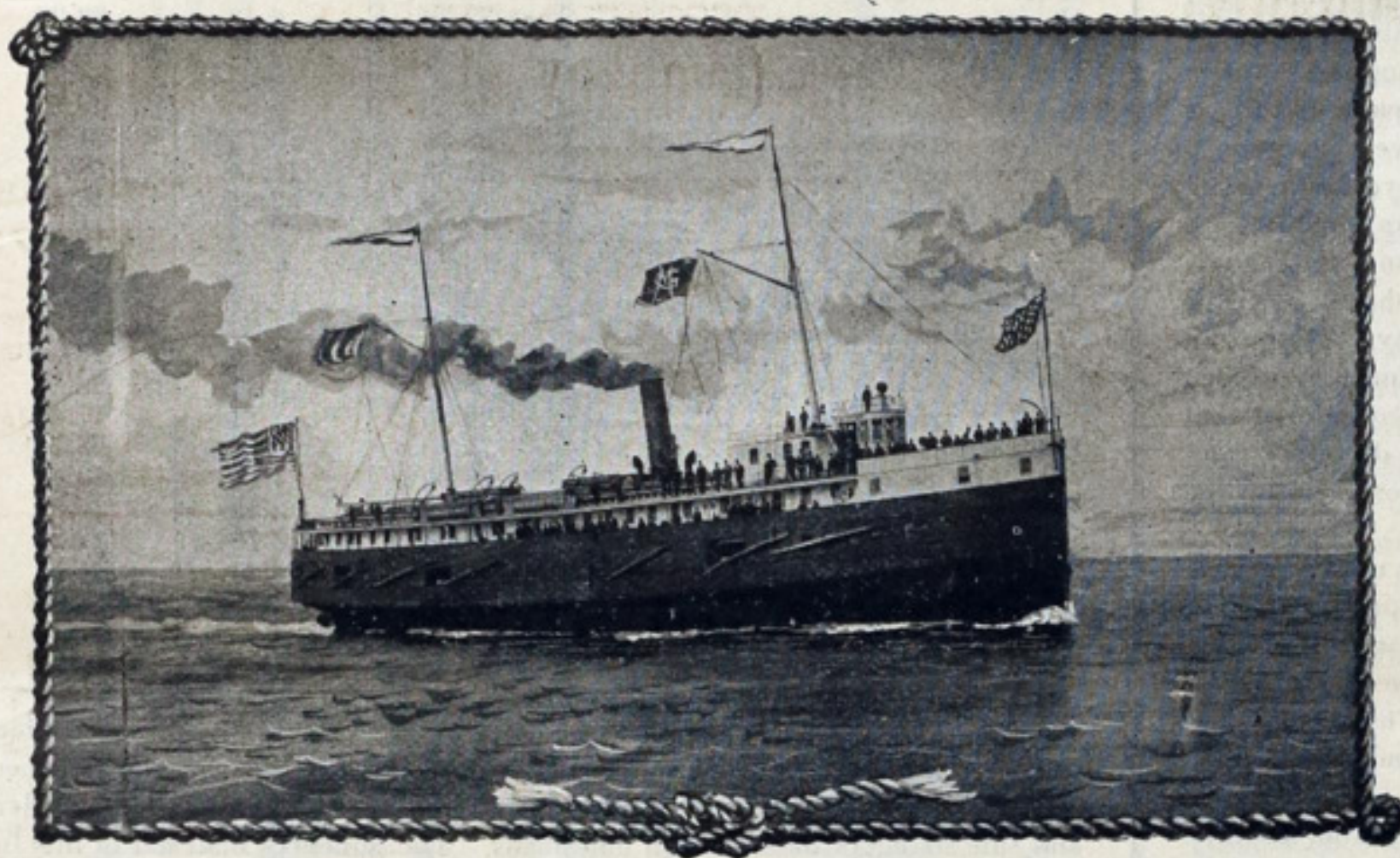
The engineering congress to be held in Chicago during the closing days of the present month will be the first international engineering congress in the history of the world. Invitations to the congress have been sent to all prominent foreign and American societies, institutions, colleges and schools of engineering, as well as to distinguished engineers in all parts of the world. Correspondence has been established with seventy-

such a proceeding on the part of owners having no contracts. Unlike the big iron mining companies that are forced to do business on an extensive credit system, the vessel owner can run along carefully on small margins from trip to trip in times of low freights, and that is just what is being done at present. In all quarters there is the hope that the great shortage of soft coal in the northwest and the surplus supplies of grain will result in a change for the better, and that the season on the whole must

turn out somewhat to the advantage of the carriers, but the developments of the past week have not been encouraging in this regard. Ore freights have reached the very low plane of 50 cents from Escanaba, 65 cents from Marquette and 70 cents from Ashland, the lowest figures ever recorded, and there is a great scarcity of cargoes even at these rates, while the movement of grain that sustained the freight market early in the season is entirely suspended. Rates on coal have been maintained, as the coal shippers are straining every effort to forward their product against many disadvantages, the principal of which is a lack of money to carry on mining operations and move the coal.

Graham and Morton Line.

The Graham and Morton Transportation Company is one of the Lake Michigan lines running into Chicago that have made special



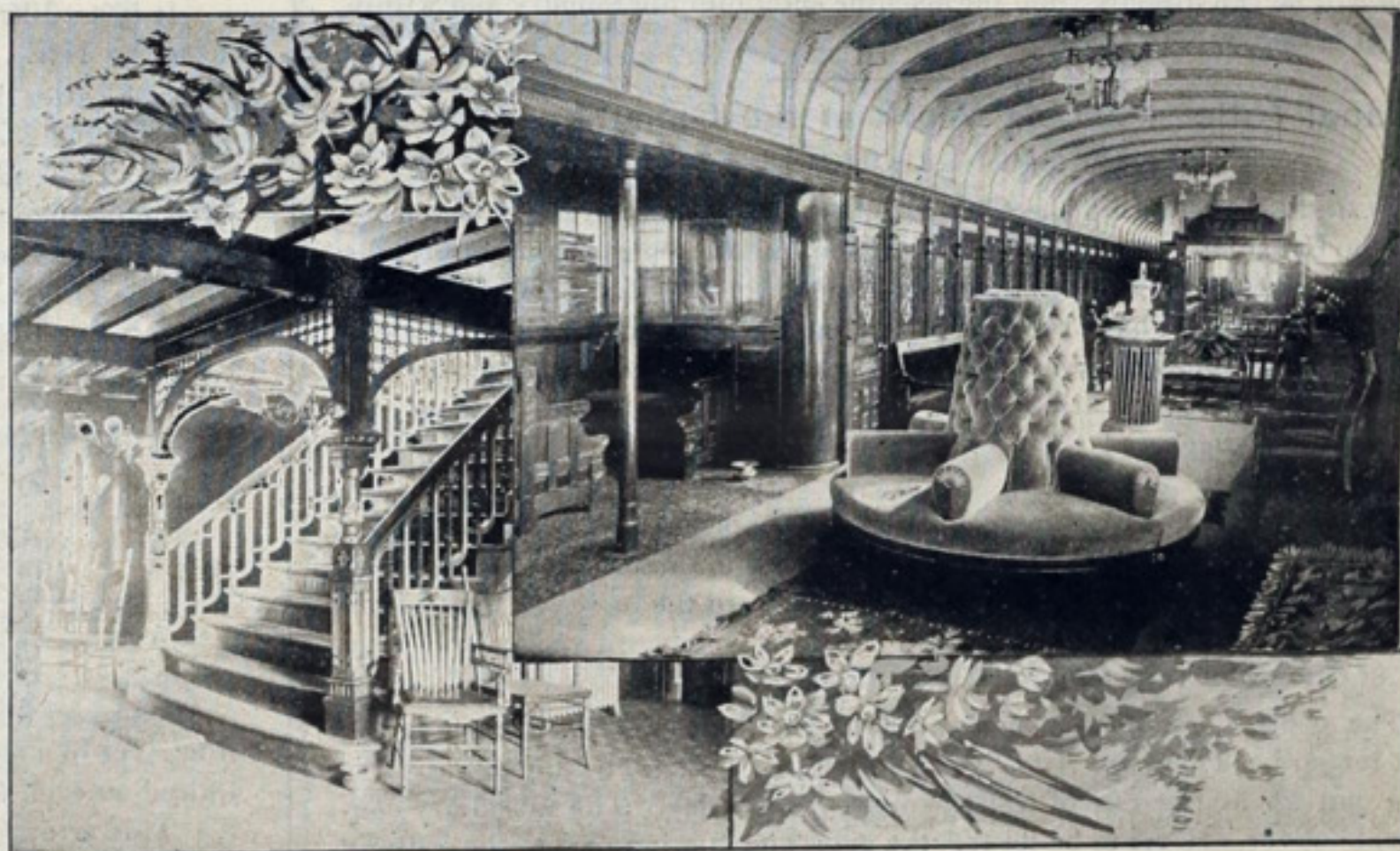
GRAHAM AND MORTON COMPANY'S STEAMER CHICORA.

five societies in twenty-seven countries. There will be original papers and discussions by leaders in the profession in every branch, describing new processes, inventions, works recently constructed or in the process of construction—in short, the advancement of engineering in the nineteenth century.

Another congress which will be held at the same time and which will be of special importance to engineers is the Water Commerce Congress. This is one of direct international importance, dealing as it does with that great economic question, the cost of transportation between states and nations. The cheapness of water transportation as compared to that by rail, accounts for the steady increase of the former. The subjects of this meeting will include building of canals, deepening of rivers, excavation of harbors, building of docks, improvements in steamers, proposed canals in the United States, and all relative topics, the discussions to be confined to the economic feature of water commerce. The executive officer of this congress is Professor William Watson of Boston.

Lake Freight Matters.

Vessel freights are paid in cash and in this there is a partial explanation for the refusal of owners to lay up their property, although it would seem that present conditions would warrant



STEAMER CHICORA, MAIN SALOON.

arrangements for world's fair traffic. One of the steamers of this line, the Chicora, built recently by Detroit Dry Dock Company, Detroit, Mich., is an especially fine boat. Two views of the Chicora appear on this page. The engraving of a view in the main saloon gives an idea of the elegant finish in the boat's cabins. Benton Harbor and St. Joseph, popular summer resorts on Lake Michigan, a short distance from Chicago, are the principal points covered by this company.

Twenty-foot Channel Work—Detroit Matters.

Special Correspondence to the MARINE REVIEW.

DETROIT, MICH., July 9.—Gen. Poe says that on all but one or two sections of the 20-foot channel, work is progressing satisfactorily. Although this is a big job of dredging, which was taken by the several contractors at a cost scarcely more than half what was expected, the results of two months' work have justified the belief that it will be completed within the short time allotted to the contractors, and that when it is finished it will be the cheapest channel work, in proportion to the benefits to be received, ever undertaken by the United States or any other government.

Detroit people take a great deal of interest in the world's fair steamer Columbus, on account of her machinery being the product of Saml. F. Hodge & Co., and they expect to see her develop a speed of better than 18½ miles an hour, but they are not rash enough to credit her with 23 miles. The run from Milwaukee to Chicago was not, they say, a fair trial as she was in fog during a large portion of the time. With more favorable conditions it is claimed that she will surpass any speed as yet rightly credited to her. The shallow channel between Chicago and the fair grounds will not permit of high speed with the boat, as she can not be sunk deep enough into the water, but it is understood that she will make a few trips down to Buffalo, Cleveland and Detroit during July and August, and if such is the case an opportunity will be found to give her a fair trial. It is also said here that it is the intention of the owners of the boat to run her between Detroit and Cleveland next year in opposition to the Detroit and Cleveland Steam Navigation Company, but this is of course, a matter of the future which would certainly involve some important alterations in the whaleback passenger boat that are not as yet made plain.

At the Orleans street yard of the Detroit Dry Dock Company, cabin work on the City of Mackinaw, the second of the Detroit and Cleveland Company's new boats, is being pushed very rapidly and she will be ready, shortly after the first of next month, to join her sister ship, the much praised City of Alpena on the Detroit-Mackinaw route. These two grand side-wheel steamers have been a little behind time in getting into commission, but when it is considered that each of them has 150 state rooms and cost about \$300,000, the dry dock company has made a wonderful record in delivering them a week or two after the few months allowed for their construction.

With all its valuable river front property, Detroit is only now in possession of a fire boat. The craft was given a place in the naval procession that welcomed the Columbus caravels here a few days ago and gave an exhibition of her water-handling power during the exercises. Her equipment in this regard, which was furnished by Thomas Manning Jr. & Co. of Cleveland, is undoubtedly as efficient as anything of its kind in the country, and the commissioners are very liberal in their praises of it.

S. F. Hodge & Co.'s new shops are nearing completion. The machine shop and the annex for erecting purposes are model structures. Both will be equipped with powerful cranes. Galleries for small tools on both sides of the machine shop add greatly to the conveniences for rapid work. A railway switch will be run directly from the machine shop into the foundry and within reach of cranes in both shops.

Canal Tolls—Pushing Work at the Canadian "Soo."

Special Correspondence to the MARINE REVIEW.

KINGSTON, ONT., July 6.—The REVIEW is quite correct in its statement "that the Canadian government has no hand" in the reported refund of tolls on grain transhipped into St. Lawrence river barges. The forwarding companies say no refunds have been made and inquiry at the canal office develops the fact that the publication is "an absurd yarn." The Montreal Gazette puts Canada's attitude in this brief form: "The Canadian government does not resort to subterfuge, and when its canal tolls policy is changed the whole world will know it."

The government boiler inspectors have been ordered to detain all steam yachts found in use without having been subjected to the necessary inspection. Hitherto this requirement has been overlooked in the case of small steam yachts but it will be enforced hereafter. Quite a number of yachts have been held at Ottawa for inspection.

The contractors of the canal at Sault Ste. Marie, Ont., are rushing the work forward. There are 70,000 yards of mason work to be done, but it is being put up at the rate of 5,000 to 6,000 yards a day. The subsidiary contracts, however, are yet to be let for the gates and a swing part to the railway bridge. It is probable that the workings of the locks will be by electricity as experiments are now going on at the Beauharnois canal to demonstrate its practicability. The power will be generated at the "Soo" rapids, which the contractors now use for the compression of air for drilling and doing other work.

Freight rates on coal from Oswego have advanced within the past week and are now quoted 30 cents a ton to Kingston, 35 cents to Toronto and Hamilton, 55 cents to Toledo and 95 cents to Chicago. There is a strong demand for vessels, as dealers are anxious to get their stocks in before the price of coal advances.

British charts of Lake Superior cover the entire north shore. We have them for sale at \$1.

Steel Ship Construction.—Part III.

STRENGTH AT WATER-TIGHT, ACROSS-SHIP BULKHEADS.

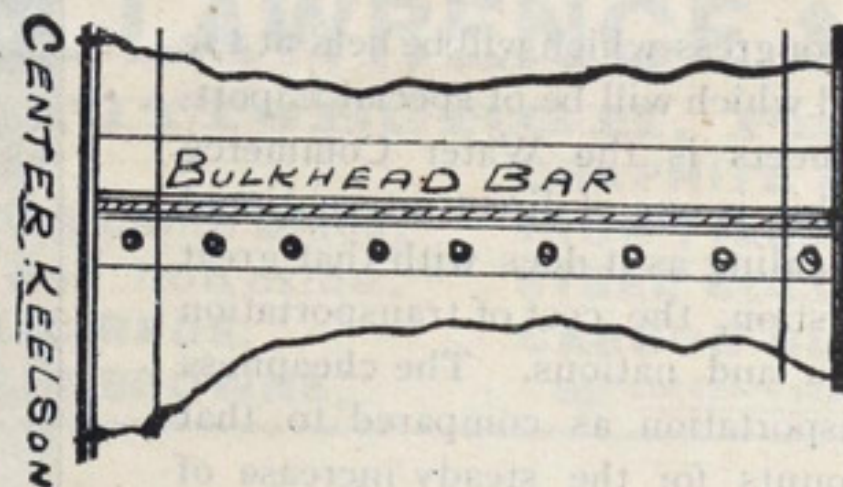
The rivets in angle frame bars which connect bulkhead plates to shell plating are spaced closely, so that the angle bars may be properly caulked and made water-tight. In doing this the metal in the shell plating is reduced at a cross section. To pick up this weakness, liner plates are fitted between the inside strakes of the plating on the inside of the vessel, as shown in the plan on keel and strakes B, D, H and S.

MINIMUM SECTION OF METAL.

PARTS OF THE STRUCTURE.	TOTAL, Square inch.	RIVET HOLES, Square inch.	EFFECTIVE, Square inch.
Keel plate	37.50	6.75	30.75
" liner plate.....	33.00	3.75	29.25
A Strake	66.00	10.50	55.50
B "	55.12	8.72	46.40
B " liner.....	47.25	7.20	40.05
C "	52.50	8.72	43.78
D "	64.00	10.50	53.50
D " liner	54.00	9.00	45.00
E "	52.50	7.86	44.64
H "	39.38	6.42	32.96
H " liner.....	31.50	5.25	26.25
I "	52.00	8.25	43.75
S "	58.50	9.00	49.50
S " liner.....	28.50	6.75	21.75
Center keelson	31.63	11.16	20.47
Girder No. 1.....	19.50	2.81	16.69
" No. 2.....	17.62	2.34	15.28
" No. 3.....	15.74	1.87	13.87
Tank margin and angle.....	40.25	6.18	34.07
" top plating a.....	32.00	4.24	27.76
" " " b.....	35.00	5.06	29.94
" " " c.....	28.12	4.24	23.88
" " rider plate.....	20.25	2.81	17.44
Deck stringer and angle.....	71.00	12.25	58.75
" plating a'.....	15.00	1.56	13.44
" " " b'.....	30.00	3.12	26.88
" " " c'.....	30.00	3.12	26.88
Side stringers and angles.....	49.50	18.36	31.14
Fender bars	18.00	2.50	15.50
Total.....	1,125.36	190.29	935.07

The rivet holes are punched $4\frac{1}{2}$ inches apart in the shell plating, girder, side stringers and center keelson, 4 inches in the tank top plating and 6 inches, center to center, in deck stringer and deck plating. Center keelson, girders and side stringers pass through bulkheads. The punched material in this instance is 935.07 square inches, being 138.91 square inches greater than at unavoidable weakest section; that is, supposing the shell plating and liner will give way.

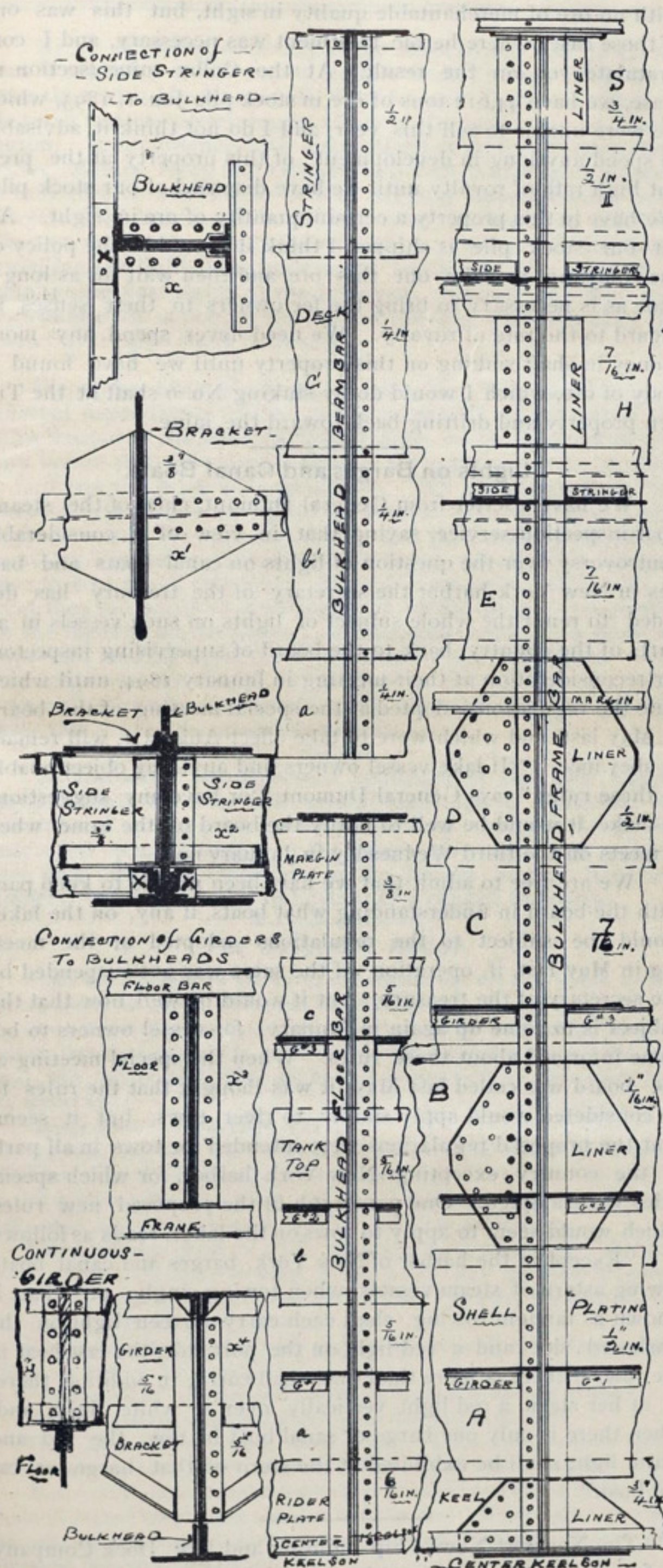
It is not likely that both plates will break but that the shell plate will, and shear the rivets in liner shown on one side of bulkhead. The punched material, after deducting the area for punched liner plates, is 772.59 square inches, being 23.57 square inches, or 707.10 tons, weaker than at a line through the rivet holes at a frame. In order to overcome this weakness, a number of rivets must be put in the liner plates on each side of bulkhead equal to 707.10 tons, the liner plates acting as a butt strap. The shearing strain of a $\frac{3}{4}$ -inch



iron rivet in a steel plate is 8.4 tons, so that 85 rivets would be the number required on each side of the bulkhead to compensate for the close pitch of rivets.

This arrangement of liner plate has 110 rivets, which is equal to 924 tons, the strength over the weakest section being 216.9 tons. The tensile strength of a $\frac{3}{4}$ -inch rivet is found by squaring the diameter and multiplying by .7854 for area and by tons per square inch. Example— $\frac{3}{4} \times \frac{3}{4} \times .7854 \times 22$ tons = 10 tons, nearly. Ten tons is taken for the tensile strength of a $\frac{3}{4}$ -inch rivet and the same for shearing strength when connecting iron plates. If the girders and side stringers stop on each side of the bulkhead, then the strain comes on the rivets when the vessel is resisting tension at these parts. Should the girder and stringer plates not be properly fitted to the bulkhead, then the rivets would be strained when compression occurred. The angle irons which connect the longitudinals to the bulkhead should be equal in strength to the plate, and the holes for rivets should in no case be less than one inch from the edge of angle bar. A number of rivets should be put into the ends of the girders and side stringers equal to the strength at weakest part of these longitudinals.

The connection of girders to bulkhead in the drawing shows the number of rivets necessary to fasten ends. X3 shows the rivets through the bulkhead floor, which are under tension when the vessel is supported at the ends. The girders through line of rivet holes will stand a tensile strain of 180 tons. The tensile strain of a $\frac{3}{4}$ -inch rivet being 10 tons, eighteen rivets are required to connect the girders to the bulkhead. X4 shows rivets through the girder which have a double shear and are equal to 16.5 tons each. Eleven of these rivets are equal to eighteen rivets of single shear



under tension. The connection of side stringers shows the number of rivets needed to compensate for stopping plates at the bulkhead. The side stringer at the weakest part would stand a tensile strain of 200 tons. X shows twenty-one rivets which are equal in strength to ten tons each under tension, which is 10 tons greater than the tensile strength of plate and angles. X' shows bracket plate fitted on the inside of the side stringer, which is connected to the stringer and bulkhead. The complement of rivets could not be gotten in satisfactorily without this bracket, as for instance X2 shows the stringer connected to the

bulkhead with six rivets double shear and two single shear in the clip at X. If any more rivet holes were punched through stringer at the bulkhead X2, it would reduce the area of the section so much that it would not stand the strain of the weakest section. X' shows twelve single shear, $\frac{3}{4}$ -inch rivets equalling 100.8 tons; X2 shows six double shear, equalling 99 tons; X shows two single shear, equalling 16.8 tons, or a total equalling 216.6 tons. These calculations are on condition that the rivet points are properly formed and plates and angles closely fitted to the bulkhead, leaving no undue strain on the rivets. Any carelessness in the workmanship of connecting longitudinals to bulkheads is damaging to the vessel, as this weak section can only be overcome by good work and the full complement of rivets.

Favoring Baker's Submarine Boat.

Special Correspondence to the MARINE REVIEW.

WASHINGTON, D. C., July 6.—The special naval board, to which was referred the proposals recently received by the department for the construction of a submarine boat for the use of the navy, has completed its work and submitted its report to Secretary Herbert. The board found that only two of the designs submitted are practicable and recommends that one of these be accepted. All of the bids came well within the \$200,000 appropriation for the construction of a suitable boat, and it is thought that the offer of Geo. C. Baker to build the boat for \$135,000 will be accepted and the craft completed as soon as possible, the remainder of the money to be expended in testing her efficiency as a submarine weapon of warfare. Foreign governments are watching with interest the action of the department in this matter.

Secretary Herbert is inviting bids for the contracts for building the three new gunboats authorized by the last Congress, and for supplying gun forgings for these ships and several others that are now building, but whose armaments are not yet commenced. Between \$2,000,000 and \$3,000,000 will be involved in these contracts. For the gunboats there will probably be the liveliest competition experienced since the beginning of work on the new navy. A number of small firms now engaged in building merchant ships only will probably enter the competition. The Cramps, the Union Iron Works, and the Midvale Steel Works, the Bath Iron Works, and the Columbian Iron Works will all doubtless be strong rivals for the new contracts. The contract for armament calls for sixty-four sets of gun forgings. The Bethlehem Iron Works and the Midvale Steel Works will doubtless be the only competitors, as they are the only firms having facilities for turning out gun steel.

Iron Mining.

VALUE OF LEADING STOCKS.

Quoted by Chas. H. Potter & Co., No. 104 Superior St. Cleveland, O.

Stocks.	Par Value.	Bid.	Asked.
Cleveland-Cliffs Iron Company.....	\$100 00	\$.....	\$.....
Champion Iron Company.....	25 00	.....	.....
Chandler Iron Company.....	25 00	.....	40 00
Jackson Iron Company.....	25 00	.....	75 00
Lake Superior Iron Company.....	25 00	.....	.....
Minnesota Iron Company.....	100 00	.....	60 00
Pittsburgh & Lake Angeline Iron Co.....	25 00	.....	.....
Republic Iron Company.....	25 00	.....	9 25
Ashland	25 00	.....	.....
Section Thirty-three.....	25 00	.....	.....
Brotherton.....	25 00	.....	2 50
Iron Belt.....	25 00	.....	2 75
Aurora.....	25 00	.....	7 00

Owners of the fee of the Dunn mine, in the Crystal Falls district, announce that they will permit grass to grow knee deep over the location before they will reduce the present royalty of 40 cents per ton. Ferdinand Schlesinger, the lessee, shows no disposition to interfere with the growth of the grass at present, and it would not be surprising if he permitted the owners to go to grass with the mine. Serve them right, too.—Exchange.

Notwithstanding the great general fall off in iron are shipments from Lake Superior mines, the movement from Two Harbors on June 27 was but about 20,000 below that of last year. The aggregate was 277,091 gross tons, divided among the different wree as follows: Chandler 132,686, Minnesota 128,985, Cation 8,284 and Cincinnati 7,136. From Ashland, the Wisconsin Central road had moved on the same date 217,580 tons and the Lake Shore 142,036 tons, a total of 359,616 tons, or 211,463 tons less than on a corresponding date last year. Amounts shipped through Ashland by the defferent Gogebic range mines are: Ashland 26,465 tons, Aurora 60,233, Colby No. 2 5,129, Tilden 30,929, Iron Belt 2,725, Montreal, south vein 1,347, Montreal, north vein 12,205, Brotherton 7,619, Comet 5,035, Carey, west 10,866, East Norrie 21,621, Eureka 9,656, Newport 19,576, Norrie 77, 884, Pabst 52,880, Sunday Lake 12,219.

No master trading to Lake Superior should be without a chart of the north shore. We have them for sale at \$1 each.

Penokee and Gogebic Consolidated Mines.

As showing the importance of some of the mining companies that have recently suspended operations in the Lake Superior region, some extracts are made here from the annual report of Treasurer Joseph L. Colby of the Penokee and Gogebic Consolidated Mines, submitted to the directors under date of Jan. 20, 1893. This company operates several of the largest mines on the Gogebic range. As shown by the following statement, the expenditures of the company for the year ending Nov. 30, 1893, were in excess of the value of ore produced:

The profit of mining ore at the mines of this company during the year was \$92,950.13, but as the expenditures for sinking new shafts, for new machinery and buildings have been 149,534.64, the amount expended this year in the development of the mines in excess of the value of ore produced is \$56,584.51.

Value of ore produced this year, \$1,977,725.87; miscellaneous receipts, \$12,194.63; total earnings, \$1,989,920.50.

The expenses have been as follows: For mining expenses (including improvements), \$1,049,114.11; for railroad freight, \$296,374.88; for lake freight, \$546,090.78; for royalty, \$154,925.24; total cost of ore, \$2,046,505.01; expenditures in excess of value of ore produced, \$56,584.51.

Following is a statement of assets and liabilities of the company on the same date, Nov. 30, 1893:

Assets—Mines, lands and leases, \$4,303,052.50; cash, \$38,245.57; bills receivable, \$10,100.00; mining supplies and timber on hand, \$75,577.23; due from furnace companies for ore, \$608,702.80; due from various persons, \$303.71; value of ore on hand, \$584,165.25; total, \$5,710,147.06.

Liabilities—Capital stock, \$4,393,052.50; bills payable, \$795,000.00; bills payable, collateral trust notes, \$1,000,000.00; interest accrued, \$25,000.00; November bills for mining expenses, \$49,581.31; November pay rolls, \$36,913.80; for railroad freight, November shipment, \$18,190.24; due for royalty, \$18,614.85; total, \$6,336,352.70; liabilities in excess of assets, \$626,205.64.

In addition to the property covered by the foregoing statement of assets, the company owns buildings, machinery and mine equipment valued at \$282,569.62, the cost of which has all been charged off to mining. It is located as follows: At the Colby and Tilden mines, \$188,852.92; at the Palms mine, \$37,052.68; at the Superior mine, \$34,406.81; at the Comet mine, \$22,257.21; total, \$282,569.62.

At the beginning of the year 1892 the company had at its mines 78,587 tons of ore, and there was produced during the year, 579,759 tons. Shipments aggregated 479,533 tons, leaving 178,813 tons at the mines at the close of 1893.

Mr Alton L. Dickerman, manager of the company, makes estimates, in a letter accompanying the report, of the cost at which ore could be produced at the several mines in 1893, as follows; Comet \$1.50, Palms \$1.50, Tilden \$1.10, Superior....., Aurora \$1.35. This is based upon working mines to fullest capacity. His estimate of the output and quality of the ore this year if the mines had been pushed to their fullest capacity is as follows:

	Tons.	Fe.	Mn.	Ph.
Comet.....	20,000	62.21	.....	.027
Mitchell.....	5,000	55.42	.....	.026
Palms.....	125,000	63.50	.....	.045
Tilden.....	500,000	63.00	1.50	.045
Colby No. 2.....	100,000	60.50	3.00	.086
Superior.....	30,000	60.50	3.00	.057
Aurora.....	225,000	62.50	.....	.027

Total.....1,005,000

In commenting on development work that has been going on at the several properties the treasurer says; "We now have a continuous body of ore in the Tilden property over one-half mile in length which we have cross-cut in a number of places from 60 to 140 feet, the depth of which we know to be from 100 to 200 feet. The average analysis of the shipment of 233,356

tons of Tilden ore last year was iron 63.00, phosphorus .044; being first-class ore, with every indication of improving upon this the coming year. Mining should now be done as cheaply at the Tilden property as at any underground mine in the Lake Superior region. Had we attempted to develop the Tilden mine in the way that such mines as the Norrie, Ashland and Aurora have been developed, we should have been to-day working in rock with no ore of merchantable quality in sight, but this was one of those cases where heroic treatment was necessary, and I congratulate you on the result. At the Colby mine (section 16 lease,) we have 44,612 tons of ore in stock pile Jan. 1, 1893, which we were unable to sell this year, and I do not think it advisable to spend anything in development of this property at the present high rate of royalty until we have disposed of our stock pile. We have in this property a certain quantity of ore in sight. After our stock pile is shipped I think it should be the policy of the company to take out this ore and then wait for as long a time as is necessary to bring the fee owners to their senses in regard to the rate of royalty. We need never spend any more money in shaft sinking on this property until we have found a body of ore, which I would do by sinking No. 6 shaft at the Tilden property and drifting back toward the mine.

Lights on Barges and Canal Boats.

We have a letter from General Dumont, chief of the steam-boat inspection service, saying that in view of a considerable controversy over the question of lights on canal boats and barges in New York harbor the secretary of the treasury has decided to remit the whole subject of lights on such vessels in all parts of the country, back to the board of supervising inspectors for reconsideration at their meeting in January 1894, until which time the regulations adopted at the special meeting of the board in May last, and which were to take effect August 1, will remain in abeyance. "If lake vessel owners find anything objectionable in these rules," says General Dumont, "or have any suggestions to make, it would be well to notify the board of the same when it meets on the third Wednesday in January next."

We are free to admit that we have been unable to keep pace with the board in understanding what boats, if any, on the lakes would be subject to the regulations adopted at the meeting in May last, if operation of the same was not suspended by the secretary of the treasury, but it would be well, now that the subject is to come up again in January, for vessel owners to become informed about these rules. When the special meeting of the board was called last May, it was thought that the rules to be considered would apply simply to river tows, but it seems that the proposed regulations were intended for tows in all parts of the country excepting New York harbor, for which special rules were adopted. One paragraph in the proposed new rules, which would seem to apply to tows on the lakes, reads as follows;

"Except in the harbor of New York, barges and canal boats towing astern of steam vessels, when towing singly, or what is known as tandem towing, shall each carry a green light on the starboard side and a red light on the port side; the last boat in the tow, if there is more than one, shall carry, in addition thereto, at her stern, a red light vertically over a white light; and, when there is only one barge or canal boat in tow, the red and white light shall be exhibited at the stern of that barge or canal boat."

The Newport News Ship Building and Dry Dock Company is figuring on the construction of two more steamers for the Southern Pacific Railroad Company, to run between New Orleans and Liverpool. They will be of 10,000 tons capacity.

The tender of Harland & Wolff, the great Belfast builders for the two large cargo boats they are about to build for the Hamburg-American Packet Company was £20,000 lower for each vessel than the tender of any German builder.

Lake Carriers' Association.

M. A. BRADLEY, President.

VICE-PRESIDENTS: { James W. Millen, Detroit, Mich. John G. Keith, Chicago, Ill.
Frank J. Firth, Erie, Pa. W. S. Brainard, Toledo, O.
Thomas Wilson, Cleveland, O. R. P. Fitzgerald, Milwaukee, Wis.
Peter F. Miller, Buffalo, N. Y. Alex. McDougall, Duluth, Minn.
Charles H. Keep, Secretary, Buffalo, N. Y. Geo. P. McKay, Treasurer, Cleveland, O.
Harvey D. Goulder, Counsel, Cleveland, O.

Mr. C. H. Keep, secretary of the association, was in Cleveland Wednesday on his way to Buffalo from Chicago and spent some time with Mr. Harvey D. Goulder and Treasurer McKay, planning matters pertaining to affairs of the association in Washington. In accordance with instructions from the finance committee, Messrs. Keep and Goulder will visit Washington as soon as they receive answers to letters seeking appointments with officers of the lighthouse board and other government officials. They go mainly to consult the executive members of the board regarding the light-ships building at Toledo and the expense of maintaining float lights at the Limekiln crossing, but will also urge immediate action on the part of the state department in the matter of reciprocity in wrecking.

Dispatches from Washington announce that the heads of different departments of the government will, on account of the extra session of congress beginning Aug. 10, be required to prepare before that date their estimates for appropriations, in order to facilitate the work of committees. The estimates from the treasury department for lights, fog signals, etc., will accordingly be made within the next few weeks, and the recommendations of Secretary Carlisle in this regard will be of considerable importance to lake vessel interests. Messrs. Keep and Goulder will do what they can while in Washington to secure proper recognition for the lakes in the secretary's recommendations, which have an important bearing upon the distribution of appropriations. As a very large number of aids to navigation throughout the lakes were authorized by the last Congress, there should be less difficulty this year in securing appropriations.

On account of the depressed condition of the lake freight market, there was some talk several days ago of reducing the schedule of wages, which was marked up this spring to last year's full opening scale, but the proposition met with opposition, and although conditions in the freight market have not changed there is now no indication of a change in wages.

The Skipper's Spook.

Night was brooding on the wave, and distant was the land where we laid our captain in his grave. The mate was in command.

Onward dashed our gallant craft; the wind was fair and strong; the mate walked proudly fore and aft, nor dreamed that aught was wrong. But, suddenly, why did he stop? Why did he stare in wonder? A voice came from the mizzen top:—

"Below there! Stand from under!"

The mate was bold, but his blood ran cold, and his flesh began to creep. 'Twas the voice of one whom he knew was gone—gone to his last long sleep.

"All clear below," he cried, "let go!" His answer was too rash; for a coffin, black as hell's smokestack, came down with an awful crash.

Fear gave each cheek an ashen hue and palsied every limb. The mate stood staring at the crew; we stood and stared at him. At length he spoke: "There will befall bad luck if here we leave it. Lay hold, my hearties, one and all, and overboard we'll heave it."

What seaman true at duty's call was ever known to flinch? We seized and lifted, one and all, but couldn't lift an inch.

"Together lift!" the boatswain said, "or the ship is doomed to wreck!"

But, alas! 'twas either filled with lead or fastened to the deck.

Then from within a deep voice came: "I am the captain's spook. There's no one here whom I can blame; but bring on deck the cook."

Then out the trembling cook we dragged from his snug hiding place. Fain would he behind have lagged; we saw it in his face. We brought him where the coffin lay and mystery seemed to lurk, and heard the voice within it say: "Wretch! behold your work!"

Down on his knees the steward went, and raised a fearful cry:

"Oh, captain, captain, I repent! I know it was that pie!"

The ghost spake: "Vengeance I don't crave, but I for justice pine. The pies that sunk me in the grave must sink him in the brine."

"Now lash him to my coffin—tight, that he may not get free; then lift it—you will find it light—and fling it in the sea."

Moral: Let cooks, if pies they can not make, forget not this galoot; nor undertake like him to bake the leaden substitute.—[Wade's Fibre and Fabric.

Yachts at the Fair—Chicago Marine.

WESTERN OFFICE, MARINE REVIEW,
No. 701 Phoenix Building, CHICAGO, ILL., July 6.

Cleveland has taken the honors for steam yachts at the world's fair. The Say When, Comanche and Wadena represented here the flower of yachting on the great lakes. Congressman W. J. White is having a great deal of pleasure out of the Say When by giving yachting parties every pleasant afternoon. His guests are delighted with her magnificent appointments. The Wadena generally goes to Jackson park and lies at anchor there while her people visit the fair, bringing them back in the evening. The Comanche's usual anchorage was off the new Chicago Beach hotel at Sixty-third street. Although a number of New York yachts have been here this summer, none of them are equal to any one of the three Cleveland yachts. In time Chicago will get there along with Cleveland, but at present she is not in it.

The first trip of the Manitou showed that she is a good, solid sixteen-mile boat. With her engine turning over eighty times, she made 15½ miles an hour on an average from Mackinaw to Chicago. At no time did the engineer take chances of heating the new machinery by crowding it. Capt. McIntyre is confident that she can make 17 miles an hour without effort, and that her normal speed, trip in and trip out, will be fifteen miles. The cabin arrangements of the Manitou are certainly unexcelled on any boat which ever came into Chicago. After a trip or two the actual test of her accommodations will be worthy of an extended article.

After a suspiciously quiet spring, the Seamen's Union sprung into prominence this week. They boarded the Edward Blake and, after a hard fight, succeeded in putting her crew of Canadian sailors on the dock. They then seized their baggage and started to make off with it, but the timely arrival of a patrol wagon loaded with policemen scattered the union delegates, and under police protection the Canadian sailors boarded their boat and were allowed to keep their jobs in peace. Tuesday night the schooner Mosher was boarded as she lay on the lumber market by a number of union delegates and a fight ensued. Although roughly handled by their assailants, the crew of the Mosher beat off the union men. Perhaps these two defeats in succession will stop these outrages for some little time, but it is hardly the nature of a union delegate to allow a "scab" to hold a job when he is unable to place any of his men on boats. Captains who thought that they would not be molested this season, however, will find that the union is still alive, even if there has not been such a fight against non-union sailors this year as last.

Saturday night the electric buoys to the fair grounds were lighted successfully and for the first time Lake Michigan along Chicago's water front was a blaze of light. The buoys proved themselves to be all that was expected of them. Captains of the excursion steamers carrying passengers to the park are loud in their praise of this mode of lighting dangerous channels, and say that they never navigated a plainer route. In the daytime the red spars are plainly visible for two or three miles, depending on the clearness of the weather. Several changes were made in the system before the last trial. The alternating current was done away with and a steady current was substituted. Great praise is due to Commander John J. Brice, who planned the buoys, and personally superintended the work. I. W. Henry, who brought out the scheme of having the lights on one cable instead of having two cables running to each light, has made a name for himself in the electrical world. Mr. Henry directed the work for the Bishop Gutta Percha Company, contractors.

Inventions of a Marine Nature.

Specially reported from the patent office, Washington, D. C., for the MARINE REVIEW.

500,267—Chain cable, by Gustav Lindenthal of New York; filed Dec. 22, 1892; serial number, 456,007.

500,399—Cable protector, by Albert W. Lackey of Gold Hill, Nevada; filed May 2, 1893; serial number 472,731.

500,411—Steam passenger boat, by Alexander McDougall of Duluth, Minn.; filed March 23, 1891; serial number, 386,167. This is another of the whaleback series and is an application of that form of vessel to passenger service. The Christopher Columbus is of the type described.

Movement of Hard Coal.

Notwithstanding the great shrinkage in soft coal shipments from Ohio ports this season, the movement of anthracite from Buffalo is nearly 25 per cent. greater than during the first three months in 1892, as shown by the following table:

	1893.	1892.
June.....	391,580	374,069
May.....	373,433	273,463
April.....	178,040	112,971
Total.....	943,053	759,971

The excess of shipments for three months of this season is 183,087, or 24.1 per cent.

British charts of Lake Superior cover the entire north shore. We have them for sale at \$1.

MARINE REVIEW.

DEVOTED TO THE LAKE MARINE AND KINDRED INTERESTS.

Chicago Office, Western Union Building, 706 Phoenix Building.
Published every Thursday at No. 516 Perry-Payne Building, Cleveland, O.

SUBSCRIPTION—\$2.00 per year in advance. Single copies 10 cents each.
Convenient binders sent, post paid, 75 cents. Advertising rates on application.

The books of the United States treasury department contain the names of 3,657 vessels, of 1,183,582.55 gross tons register in the lake trade. The lakes have more steam vessels of 1,000 to 2,500 tons than the combined ownership of this class of vessels in all other sections of the country. The number of steam vessels of 1,000 to 2,500 tons on the lakes on June 30, 1892, was 321 and their aggregate gross tonnage 534,490.27; in all other parts of the country the number of this class of vessels was, on the same date, 217 and their gross tonnage 321,784.6. The classification of the entire lake fleet is as follows:

Class.	Number.	Gross Tonnage.
Steam vessels.....	1,631	763,063.32
Sailing vessels.....	1,226	319,617.61
Canal boats.....	731	75,580.50
Barges.....	69	25,321.12

Total..... 3,657 1,183,582.55

Tonnage built on the lakes during the past five years, according to the reports of the United States commissioner of navigation, is as follows:

	Number.	Net Tonnage.
1888.....	222	101,102.87
1889.....	225	107,080.30
1890.....	218	108,515.00
1891.....	204	111,856.45
1892.....	169	45,168.98

Total..... 1,038 473,723.60

ST. MARY'S FALLS AND SUEZ CANAL TRAFFIC.

	St. Mary's Falls Canal.			Suez Canal.		
	1892.	1891.	1890.	1892.	1891.	1890.
No. vessel passages	12,580	10,191	10,557	3,559	4,207	3,389
Ton'ge, net regist'd	10,647,203	8,400,685	8,454,435	7,712,028	8,698,777	6,890,014
Days of navigation	223	225	228	365	365	365

Entered at Cleveland Post Office as Second-class Mail Matter.

AGAIN the people of Toronto are discussing in public meetings their scheme for a canal between the Georgian bay and Lake Ontario, and C. C. Wyatt of Charlottesville, Va., who has had himself interviewed in various newspapers throughout the country, but who is unknown in the lake region, claims to have secured a large amount of capital for the construction of a short route waterway in Canada from Lake St. Clair to Lake Erie. Mr. Wyatt, whoever he may be, is indulging in a great deal of talk that is unworthy of any consideration, as his canal would parallel the Detroit river route and present only meager advantages for an expenditure of many millions. His scheme would be stripped entirely of the small gains that it offers if the plans of the citizens of Toronto for the Huron-Ontario canal could be carried out, but Canada has but little wealth with which to complete even its present canal undertakings, and what is the use of talking of private enterprise in connection with works of this kind when the financial problem involved is beyond the reach of all but powerful governments?

THE Harlan and Hollingsworth Company, ship builders of Wilmington, Del., have asked English manufacturers of steel to quote prices on ship plates, angles and beams. Officers of the company say they are seeking this information in advance, in order to avoid possible losses arising from free trade legislation in the next congress. They argue that the price of labor is to be reduced and that margins are to be lowered in all branches of business. Their conclusions are undoubtedly sound, as such conditions seem inevitable, but it is not probable that material for the construction of ships will be imported in large quantities into this country, however much the tariff may be reduced, as the prices at which steel and iron are now selling here, without the re-adjustment that is expected in event of a lower tariff, seem to be a decided barrier to importation. On the lakes, at least,

where furnaces and mills are located in the immediate vicinity of the ship yards, there can be no imported material, unless in lines of special forgings or machinery.

SECRETARY Carlisle of the Treasury, department has issued a circular directing masters of merchant vessels and officers of revenue marine cutters and vessels of the light-house establishment to report to the commissioner of navigation all wrecks and derelicts that are a menace to navigation. This order is very probably prompted by Mr. O'Brien, commissioner of navigation, who can now do the vessel interests of the lakes an additional favor by finding in the treasury department some fund for the removal of such wrecks and derelicts when they are found. The greatest difficulty experienced on the lakes is to first get the light-house board to buoy and light worthless sunken wrecks and then find government funds for their removal.

It is claimed that the light-house board has successfully lighted the lake front between Chicago harbor and the World's Columbian Exposition grounds with a grand system of electric buoys. If so much has been done for display at the exposition why is the influence of this same board not used in Congress in favor of a similar system of lights for the St. Mary's river, where Lake Superior commerce would be benefitted to the extent of millions in a few years through making navigation as safe by night as by day.

THE immigration bureau is undecided as to whether, under the alien contract labor law, owners or masters of lake vessels can be prosecuted for engaging at the close of navigation a Canadian seaman to return for service the next season. Washington heads of bureau have, as a result of recent agitation of this question in Chicago, instructed the lake inspectors to keep a look out for a case of this kind in order to make a test of the law.

THE commonest instinct of humanity would seem to warrant an immediate settlement of the question of reciprocity in wrecking between Canada and the United States, and yet the executive heads of both governments have for months delayed exercising the authority granted them by the legislative bodies.

Trade Notes.

The American Shipmasters Association of 37 William Street, New York, classed last week the American three-masted schooner Cassie Jameson, American barge Wilkesbarre, American half brig Woodbury, British half brig Boston Marine and British schooner Topez.

Alex. Lawrence, superintending engineer of the Baltimore, Chesapeake and Richmond Steamboat Company, writes H. G. Trout of the King Iron Works, Buffalo, as follows: "The propeller wheel furnished by you for our steamer Baltimore has proved very satisfactory. We get more speed and burn less coal while the engine makes fewer revolutions, and the shake of the ship has been reduced to a minimum. I am so well pleased that when we require a new wheel for any of our other steamers I will recommend ordering from you.

For the benefit of owners and builders, we illustrate two pieces of Mabbs hydraulic raw-hide packing. If it is what they claim—and the testimonials given substantiate their statements—it would be well for parties using hydraulic packing to investigate its merits, as it can be perfectly renewed without having to clean out the stuffing box, by adding a piece at a time as there is room. This would make it valuable for propeller stern pipes, where the stuffing box can not be cleaned out except when the vessel is in dry dock. For common hydraulic pumping machinery it has proved successful. Send a postal card to the Mabbs Hydraulic Packing Company, P. O. Box 828, Chicago, Ill., for a copy of a circular explaining qualities of this packing.



Care of Sick and Disabled Seamen.

Arrangements have been made by the marine hospital service for the care of sick and disabled seamen at the following lake ports:

Ashland, Wis.—St. Joseph's hospital to furnish quarters, subsistence, nursing, medical attendance and medicines at \$1 per day.

Ashtabula, O.—Medical attendance to be furnished by an acting assistant surgeon; Mrs. Henry Whelpley to furnish quarters, subsistence and nursing at \$1 per day; contagious diseases, \$1.50 per day; John Ducro & Sons to provide for the burial of deceased patients, at \$14 each. Patients requiring long continued hospital treatment will be furnished transportation to the United States marine hospital at Detroit.

Buffalo, N. Y.—Medical attendance to be furnished by a medical officer of the marine hospital service; the Buffalo hospital (Sisters of Charity) to furnish quarters, subsistence, nursing and medicines at 80 cents per day; contagious diseases at \$2 per day; and to provide for the burial of deceased patients at \$10 each.

Chicago, Ill.—Hospital patients to be cared for in the United States marine hospital; A. E. Braton & Co. to provide for the burial of deceased patients at \$18.50 each.

Cleveland, O.—Medical attendance to be furnished by a medical officer of the marine hospital service; the Cleveland City Hospital Association to furnish quarters, subsistence, nursing and medicines, in the United States marine hospital, under lease of Sept. 21, 1875, at 64 cents per day. The hospital to be kept in repair by the association; Flynn, Abel & Froelk to furnish ambulance service, at \$2 for each patient; G. Jasper to provide for the burial of deceased patients at \$11 each.

Detroit, Mich.—Hospital patients to be cared for in the United States marine hospital; out-patients to be treated at the dispensary, No. 90 Griswold street; J. A. Dick & Co. to provide for the burial of deceased patients at \$8.90 each.

Duluth, Minn.—Medical attendance to be furnished by an acting assistant surgeon; St. Luke's hospital to furnish quarters, subsistence, nursing and medicines at 90 cents per day; John W. Stewart to provide for the burial of deceased patients at \$15 each.

Erie, Pa.—Medical attendance to be furnished by an acting assistant surgeon; Hamot Hospital Association to furnish quarters, subsistence and nursing at 71 cents per day. Patients requiring long-continued hospital treatment will be furnished transportation to the United States marine hospital at Detroit.

Escanaba, Mich.—Medical attendance to be furnished by an acting assistant surgeon; Delta County hospital to furnish quarters, subsistence and nursing at \$1 per day.

Grand Haven, Mich.—Medical attendance to be furnished by an acting assistant surgeon; Nancy Palmer to furnish quarters, subsistence and nursing at \$1 per day.

Green Bay, Wis.—Medical attendance to be furnished by an acting assistant surgeon; St. Vincent hospital to furnish quarters, subsistence, nursing and medicine at \$1 per day; contagious diseases at \$3 per day; Lefebvre & Schumacher to provide for the burial of deceased patients at \$16 each.

Ludington, Mich.—Medical attendance to be furnished by an acting assistant surgeon; Hannibal D. Lindsley to furnish quarters, subsistence and nursing at \$1 per day.

Manistee, Mich.—Medical attendance to be furnished by an acting assistant surgeon; Mercy hospital to furnish quarters, subsistence, nursing and medicines at 90 cents per day.

Marquette, Mich.—Medical attendance to be furnished by an acting assistant surgeon; St. Mary's hospital to furnish quarters, subsistence and medicines at \$1 per day; contagious diseases at \$4 per day; and to provide for burial of deceased patients at \$15 each.

Michigan City, Ind.—Medical attendance to be furnished by an acting assistant surgeon; seamen requiring hospital treatment must make application at the United States Marine hospital, Chicago.

Milwaukee, Wis.—Medical attendance to be furnished by an acting assistant surgeon; out-patients to be treated at No. 159 Wisconsin street; St. Mary's hospital to furnish quarters, subsistence, nursing and medicines at 80 cents per day; Chas. E. Judson to provide for the burial of deceased patients at \$15.75 each. Chronic hospital patients to be furnished transportation to the United States marine hospital at Chicago.

Ogdensburg, N. Y.—Medical attendance to be furnished by an acting assistant surgeon; the City hospital to furnish quarters, subsistence, medicines and nursing at \$1.25 per day; and to provide for the burial of deceased patients at \$15 each.

Oswego, N. Y.—Medical attendance to be furnished by an acting assistant surgeon; the Oswego hospital to furnish quarters, subsistence, nursing and medicines at \$1.25 per day.

Port Huron, Mich.—Medical attendance to be furnished by an acting assistant surgeon; the Hospital and Home to furnish quarters, subsistence and nursing at \$1 per day. Patients requiring long-continued hospital treatment will be furnished transportation to the United States Marine hospital at Detroit; George Thompson to provide for the burial of deceased patients at \$8 each.

Saginaw, Mich.—Medical attendance to be furnished by an acting assistant surgeon; St. Mary's hospital to furnish quarters, subsistence, nursing and

medicines at 65 cents per day. Patients requiring long-continued hospital treatment to be furnished transportation to the United States marine hospital at Detroit.

Sandusky, O.—Medical attendance to be furnished by an acting assistant surgeon; the Good Samaritan hospital to furnish quarters, subsistence and nursing at \$1 per day.

Sault Ste. Marie, Mich.—Medical attendance to be furnished by an acting assistant surgeon; Mrs. Annie McNeeley to furnish quarters, subsistence and nursing at \$1 per day; J. Vanderhook to provide for the burial of deceased patients at \$5 each.

Superior, Wis.—Medical attendance to be furnished by an acting assistant surgeon; St. Francis hospital to furnish quarters, subsistence, nursing and medicines at 90 cents per day.

Toledo, O.—Medical attendance to be furnished by an acting assistant surgeon; St. Vincent hospital to furnish quarters, subsistence, nursing and medicines at 80 cents per day; contagious diseases \$2 per day; and to provide for the burial of deceased patients at \$15 each.

TREASURY DEPARTMENT, OFFICE OF
General Superintendent U. S. Life-Saving Service, Washington, D. C., June 21, 1893. Sealed proposals will be received at this office until 2 o'clock p. m. of Thursday, the 26th day of July, 1893, for furnishing supplies required for use of the Life-Saving Service for the fiscal year ending June 30, 1894; the supplies to be delivered at such points in New York City, Grand Haven, Mich., and San Francisco, Cal., as may be required, and in the quantities named in the specifications. The supplies needed consist of Beds and Bedding, Blocks and Sheaves, Cordage, Crockery, Furniture, Hardware, Lamps, Lanterns, etc.; Lumber, Medicines, etc.; Paints, Oils, etc.; Ship Chandlery, Stoves, etc.; Tools, and Miscellaneous articles; all of which are enumerated in the specifications attached to the form of bid, etc., which may be obtained upon application to this office, or to the Inspector of Life-Saving Stations, 24 State Street, New York City; Superintendent Eleventh Life-Saving District, Grand Haven, Mich., and Superintendent Twelfth Life-Saving District, Appraisers' New Building, San Francisco, Cal. Envelopes containing proposals should be addressed to the "General Superintendent U. S. Life-Saving Service, Washington, D. C.," and marked on the outside "Proposal for Annual Supplies." The right is reserved to reject any or all bids and to waive defects, if deemed for the interests of the Government. S. I. KIMBALL, General Superintendent.

PROPOSALS FOR GUN FORGINGS, NAVY
Department, Washington, June 29, 1893. The attention of all steel manufacturers of the United States is hereby invited to the requirements of the Navy Department for gun forgings for the batteries of vessels for the Navy. This advertisement invites all domestic manufacturers of steel to specify, in competition with each other, upon what terms they will engage to produce the gun forgings herein mentioned, and no bids will be considered except such as engage to produce within the United States, of domestic material, the gun steel mentioned in this advertisement, nor will any bids be accepted unless accompanied by evidence satisfactory to the Department that the bidder is in possession of a plant adequate for its fulfillment. Bids are hereby invited for furnishing the Department the following material: Forty sets of rough-bored and turned forgings for 4-inch breech-loading rifles. Thirty sets of rough-bored and turned forgings for 5-inch breech-loading rifles. Sixteen sets of rough-bored and turned forgings for 8-inch breech-loading rifles. Five sets of rough-bored and turned forgings for 12-inch breech-loading rifles. One set of rough-bored and turned forgings for 3-inch breech-loading rifle. For information concerning shapes and weights of the gun forgings, the specifications governing the manufacture and the tests for acceptance of the same, and for all other particulars, apply to the Chief of Bureau of Ordnance, Navy Department, Washington, D. C. Proposals must be in duplicate, sealed and addressed to the Secretary of the Navy, Navy Department, Washington, D. C., the envelopes endorsed "Proposals for gun forgings." They will be received at the Navy Department until 12 o'clock m. on the 18th day of July, 1893, at which hour the opening of the bids will take place. Each proposal must be accompanied by a certified check, payable to the order of the Secretary of the Navy, for an amount equal to five per cent. of the bid. The check received from the successful bidder will be returned to him on his entering into a formal contract for the due performance of the work and giving bond for the same, with security to the satisfaction of the Secretary of the Navy, in a penal sum equal to 15 per cent. of the amount of his bid; but in case he shall fail to enter into such contract and to give such bond within thirty days after notice of the acceptance of his proposal, the check accompanying such proposal shall become the property of the United States. All checks accompanying proposals which are not accepted will be returned immediately after the award shall have been made. The right is reserved to waive defects in the form of, and to reject any or all bids. Ten per cent. will be retained from payments under the contract on each class of forgings until completion thereof and compliance with the specifications. Preference will be given for early deliveries, and a penalty will be imposed for failure to deliver the forgings within the time specified in the contract. H. A. HERBERT, Secretary of the Navy. 6-13

Tips from the Man on the Dock.

Do you know that not every sailor who rises in his calling until he has held a mate's position for a number of years will necessarily make a good master? Not because he has not sufficient intelligence, or has not had sufficient experience to learn his duties. Some men have no independent executive ability; they lack independent judgment. I have seen excellent mates who were failures as masters. I remember one instance well, a man who had had twenty years experience as boy, man and mate, and who was considered a good officer, and yet when given a vessel to sail he got her ashore in a fog on his first trip. In describing the accident to me he said:

"I hove the lead and kept it agoing and I felt I ought to go about, but I had been so used to calling the 'ole man' in such weather that I kept her running until she got ashore. I don't want any more captain in mine. A mate's berth is good enough for me. I'm all right if I know I can fall back on the 'ole man', if necessary."

He was used to leaning on some one, and when he found himself without his support he became what we call "rattled" and lost his judgment. Many an accident is chargeable to that kind of a mate.

* * * *

Now, I want to tell you of another class of mates who, as the man said, "have got too much judgment." They are the kind that have the big mouths and the big feet, and they frequently put both to bad use by putting one into the other. They are of the class that are "away up" on the kind of nautical "lore" that is used in addressing deck hands in a loud tone of voice, and they frequently emphasize this by a more liberal use of feet and hands. They are sometimes called first class mates, but their chief virtue consists in hounding men until in sheer desperation, or from fear of personal violence they do (in the presence of their tyrant) more work than they would do under better treatment, but who when so treated work under compulsion but without interest. I heard one of these mates one time, while the steamer was being brought to the dock, have a dialogue with some negro deck hands.

"Shtick out that line theyre, you paircel of apes, git a move on ye, ye moonkeys"

"We stick dat line out, but we's no apes, boss, and don you fergit it."

"Ah, go long wid ye, yere a pack o' baboons."

It is this kind of a mate that flourishes best on the passenger and package freight steamers. But when it comes to navigation and dealings with shippers, consignees and business men, when a man's good judgment and good manners count, such a man is not fit to take command of any vessel.

* * * *

Talking about mates with hands, feet and voice but whose brain it might be difficult to locate, if you went to look for it outside of their mouths, I want to say that there is still another kind of mates that are not likely to make good masters and it is because they are almost the opposite of the latter. This one is the oily, smooth and sanctimonious fellow. He seldom swears when any one can hear him, and has few of the common so called "vices" of the average seaman. He is the goody, goody fellow who has little to say when in the presence of those above him in rank, but who can talk when with his kind. He always says "sir" at the end of everything, and he does so out of habit even when it is only a rope's end. He will do what he is told if it is not too hard or too dangerous to execute, and if it is, he will try and sneak out of it some way. He usually lacks courage and most always sound judgment and good hard sense. He, too, is not fit to command a vessel. If he sailed one he would lack "sand" and others would beat him out of his turn at the dock, and the coal consignee would delay his vessel and "bluff" him out of the demurrage.

* * * *

Talking of the use of "sir" in repeating an order reminds me of the story told me by old Capt. Bill Campbell. He was a big, bluff fellow with a kind heart, and at one time with a big fist and an awful thirst, and while quenching the latter, not unfrequently he made dangerous use of the former. Telling the story, he said:

"One fall I made up my mind I wanted to sail salt water, 'cause I'd never been off the lakes, just to see how it felt. So when I laid up in Buffalo in the fall I took a trip to New York and shipped in the bark Hector, bound to South America. The first day out it was my trick at the wheel and she was sailing 'full and by'. The 'ole man' was on the cabin and after awhile

sung out to me 'let her luff a little'. I sung back 'let her luff a little', and gave her a couple of spokes. The 'ole man' looked at me and again sung out louder and more sternly, 'let her luff a little'. I very promptly called back 'let her luff a little', and I gave her a couple of spokes more. I had hardly got the words out of my mouth when, in a voice of thunder, he sung out, 'let her luff a little, — you'. Nothing daunted, I sung out, 'let her luff a little, — you', and I no more than said it before I had to dodge a belaying pin that he aimed at my head, and he followed this up himself, and of all the tongue lashings a man ever got, I got the worst, and do you know what he made all that fuss about? No, of course, you don't. Well, it was just because I didn't say, 'let her luff a little, sir'".

Around the Lakes.

Three whalebacks, the steamer Mather and consorts 111 and 129, delivered 266,069 bushels of wheat in Buffalo a few days ago from Duluth.

The Review of Reviews, July number, contains a short but interesting sketch of James J. Hill's services as manager of the Great Northern railway system.

F. W. Wheeler, of West Bay City, A. A. Parker and Capt. James Millen of Detroit, and Capt. F. D. Herriman of the Bureau Veritas were among visitors in Cleveland during the past week.

After bringing down the largest cargo of ore ever taken out of Ashland, 3,118 gross tons, the Whitney steamer Merida, built by F. W. Wheeler & Co. of West Bay City, was unloaded Saturday at the Cleveland & Pittsburg docks, Cleveland, in a little less than thirteen hours.

In a few days the Cleveland Ship Building Company will deliver the steel steamer Alva to her owners, Mr. M. A. Bradley and others. This boat, built in accordance with the rules of the Bureau Veritas under inspection by Capt. F. D. Herriman, is especially strong in general construction.

Bids for a fire boat were opened in Cleveland Wednesday. Proposals were received from only two concerns, the Craig Ship Building Company of Toledo and Thomas Manning Sons & Co. of Cleveland. It is more than probable that a contract will be made with the Cleveland company. The boat will be one of the finest in the country.

Mr. W. A. Livingstone, who has been appointed successor to the late J. T. Whiting as general agent of the Western Transit Company in Detroit, is probably better known among leading vessel owners than any young man on the lakes. He has had the advantages of practical training in shipping matters from boyhood and has made the best of the opportunities offered him.

Mr. Sinclair Stewart, surveyor for the United States standard register, will go up the lakes on the steamer Mariposa on her next trip from Cleveland, returning on another steamer of the Minnesota company's fleet, in order that he may inform himself and report to the association on the performance, both light and loaded, of the large steel steamers in the ore trade. In returning he will take a steamer bound to South Chicago and visit the yard of the Chicago Ship Building Company and the World's Columbian Exposition.

Two estimable women, wives of lake men, died in Cleveland during the past week. Mrs. Chapman, wife of Capt. Chapman of the Menominee steamer Briton, died at the family home, No. 222 Beach street. The funeral services were conducted by Rev. Mr. Jones, who is so favorably known to vessel owners and masters in Cleveland, and was largely attended. Mrs. W. F. Sauber, wife of the well known marine engineer of Marine City, died at Huron street hospital, where she had been for some time under treatment. The funeral took place in Marine City Wednesday.

A few copies of Patterson's Nautical Dictionary held by the MARINE REVIEW are all that are for sale anywhere, since the destruction by fire of plates and all other material entering into the work. The price, \$5, has not been raised.

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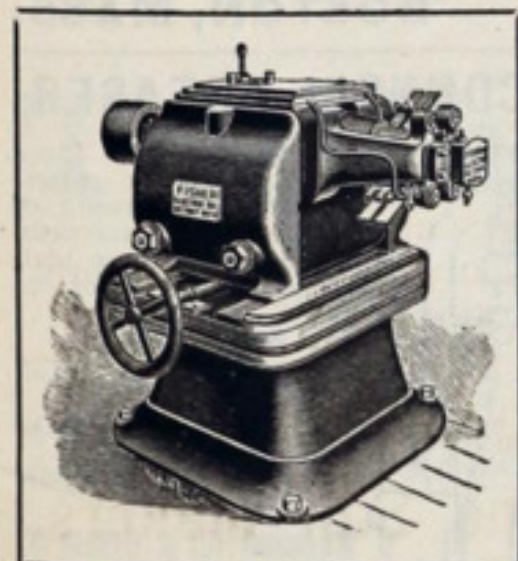
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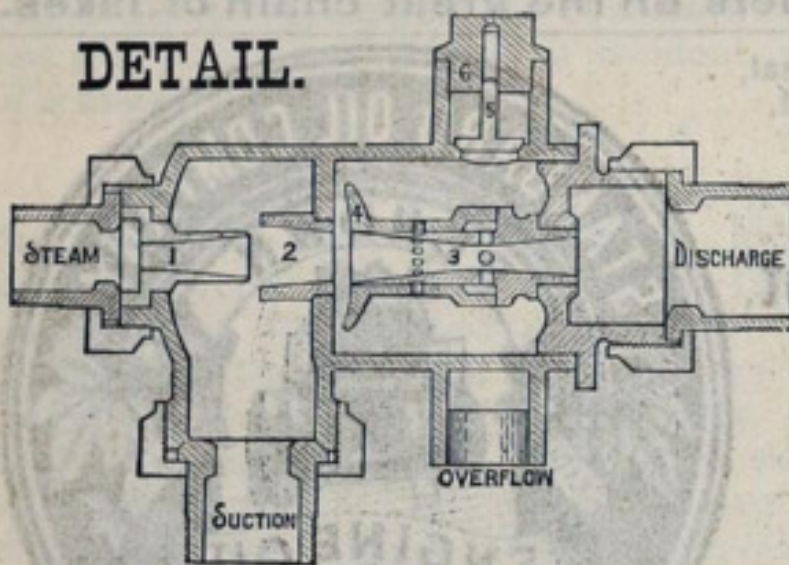
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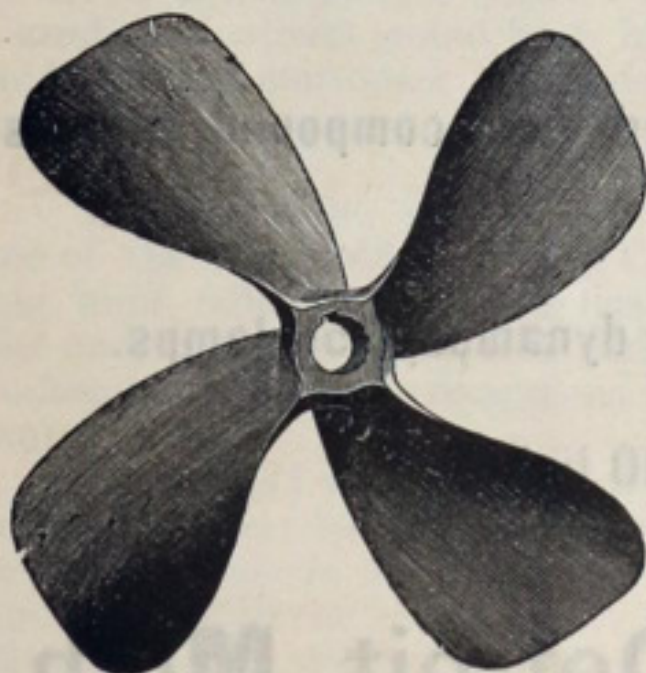
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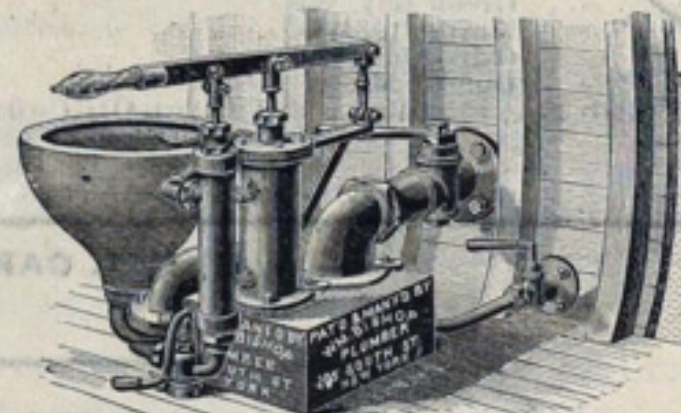
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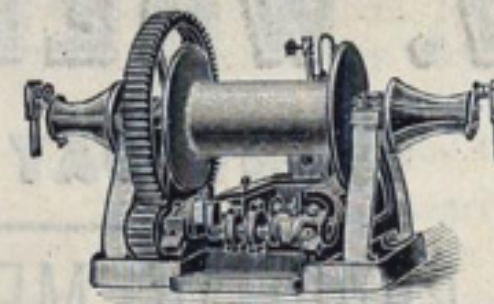


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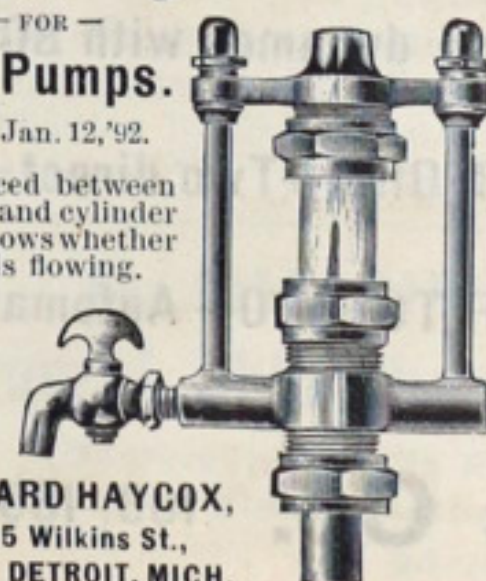
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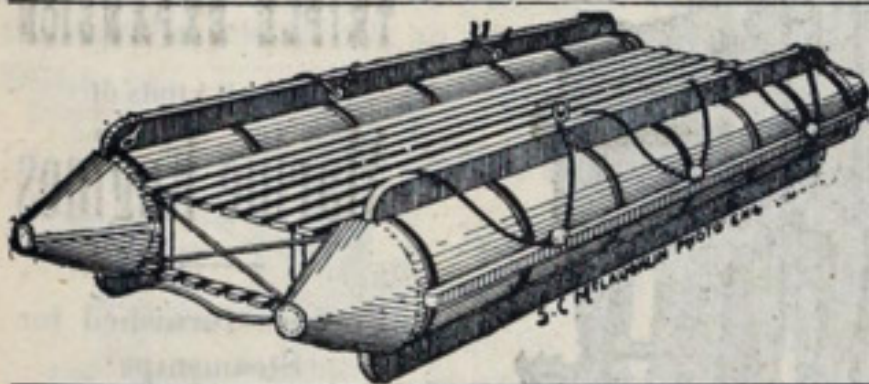
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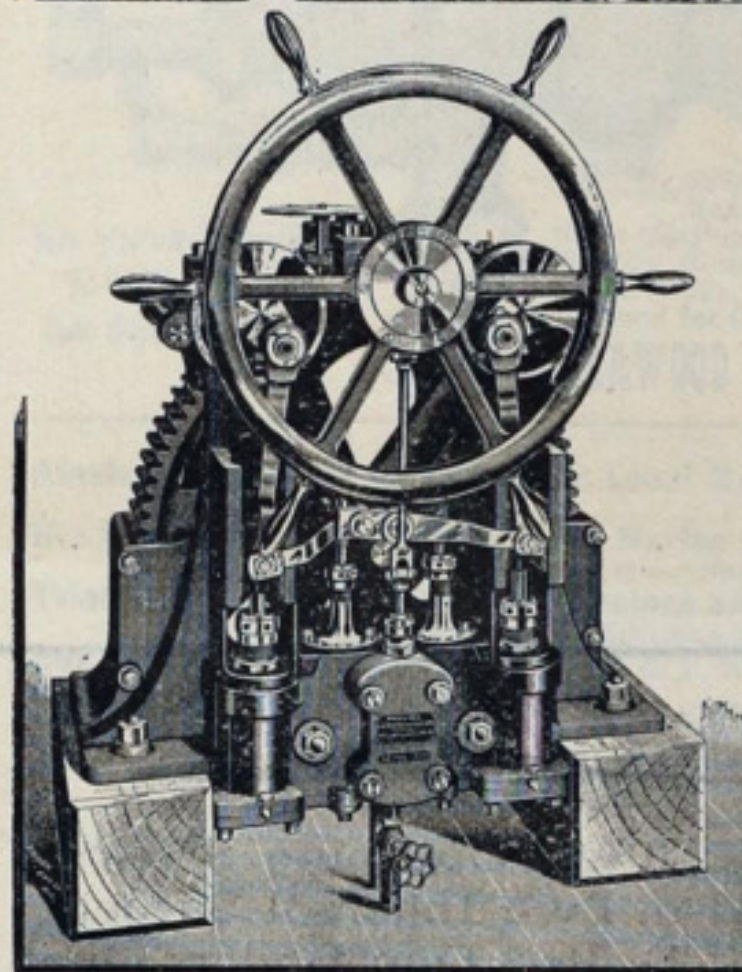
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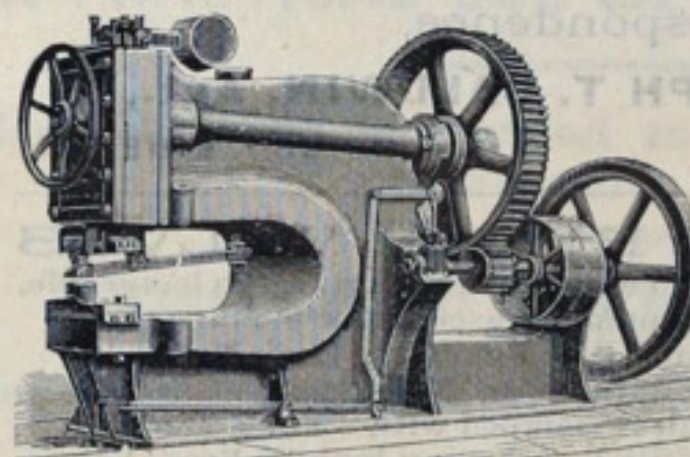
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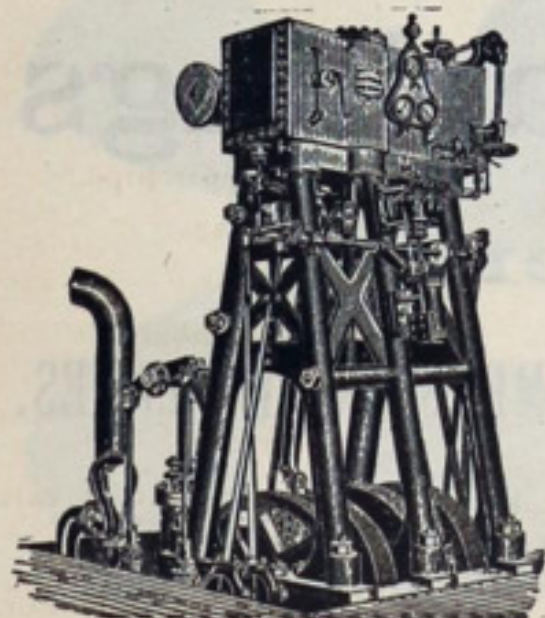
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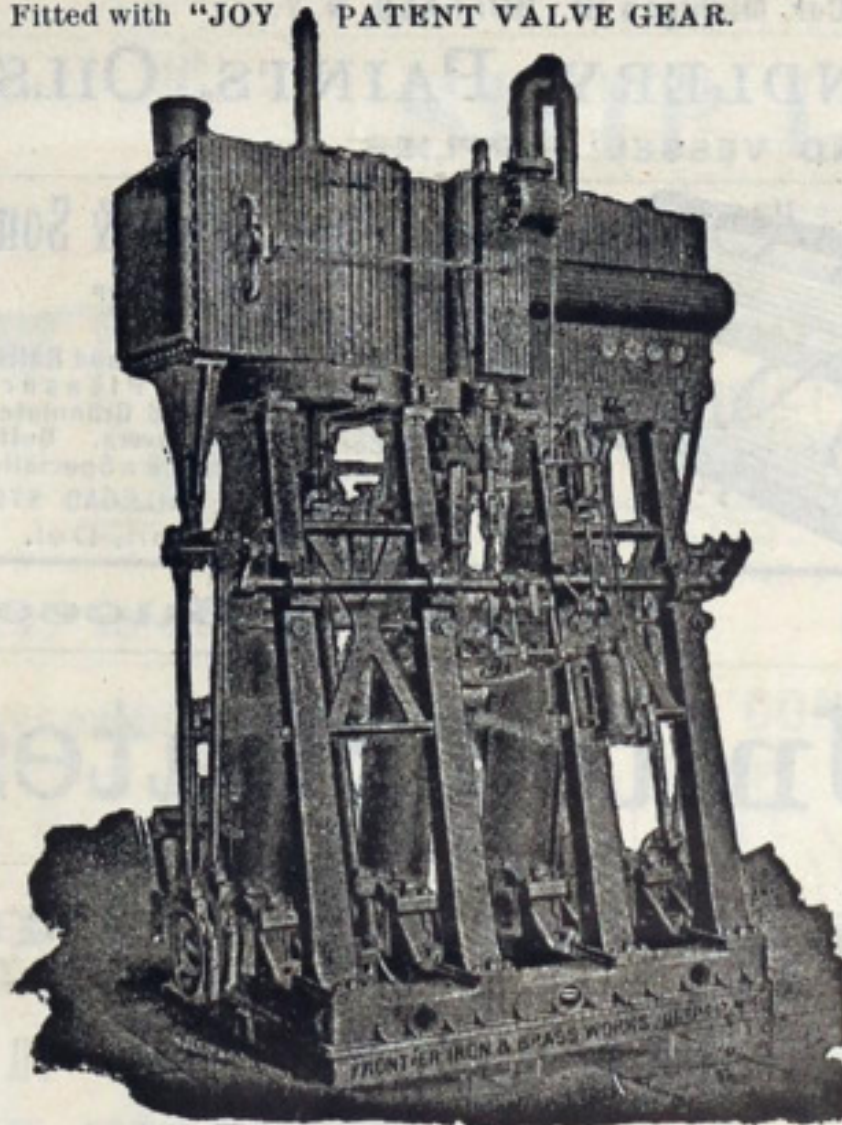
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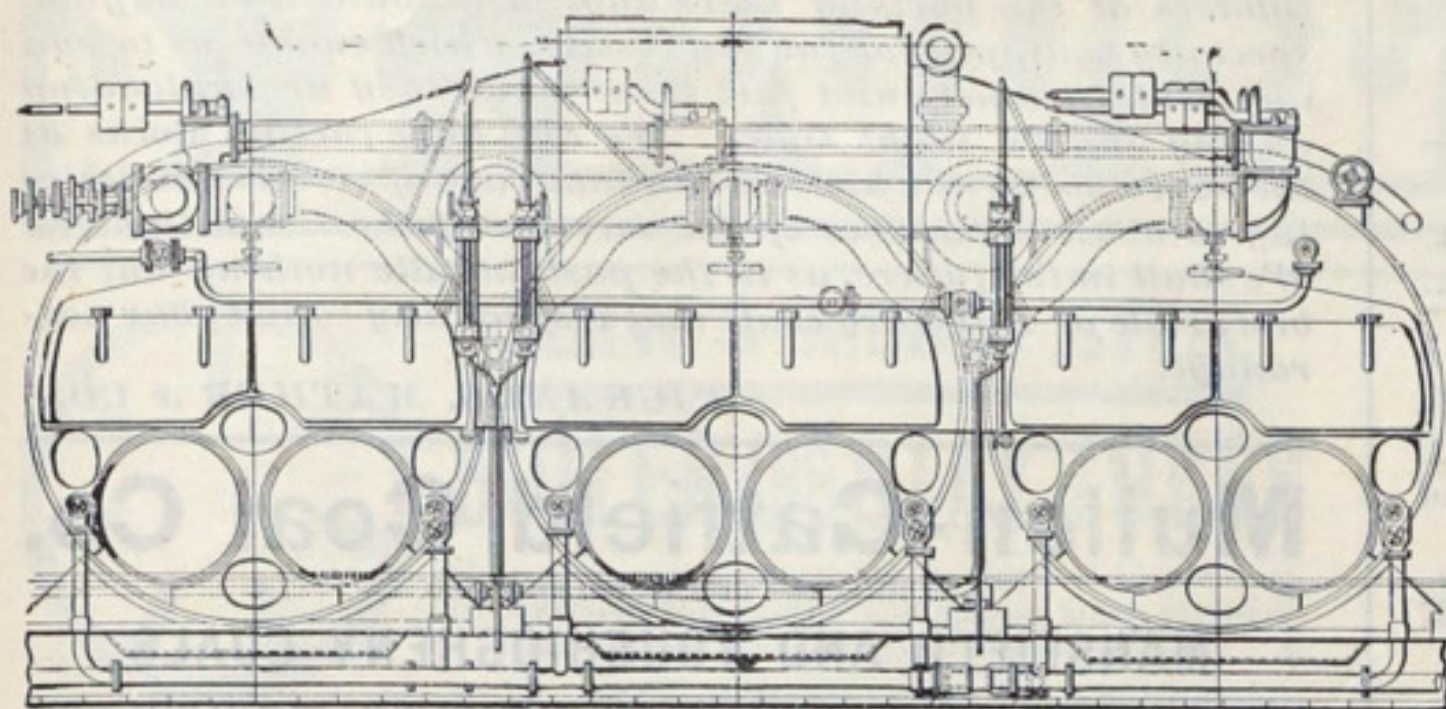
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1-10	1-10	1-10	1-10
11-20	11-20	11-20	11-20
21-31	21-31	21-31	21-31
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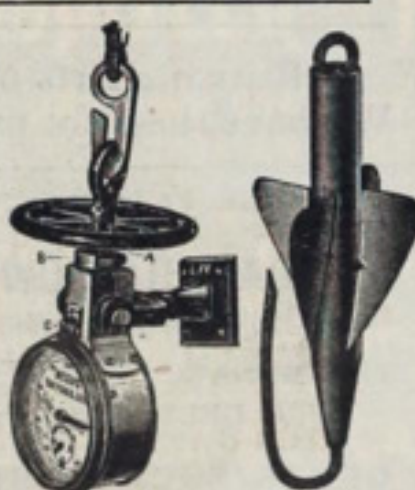
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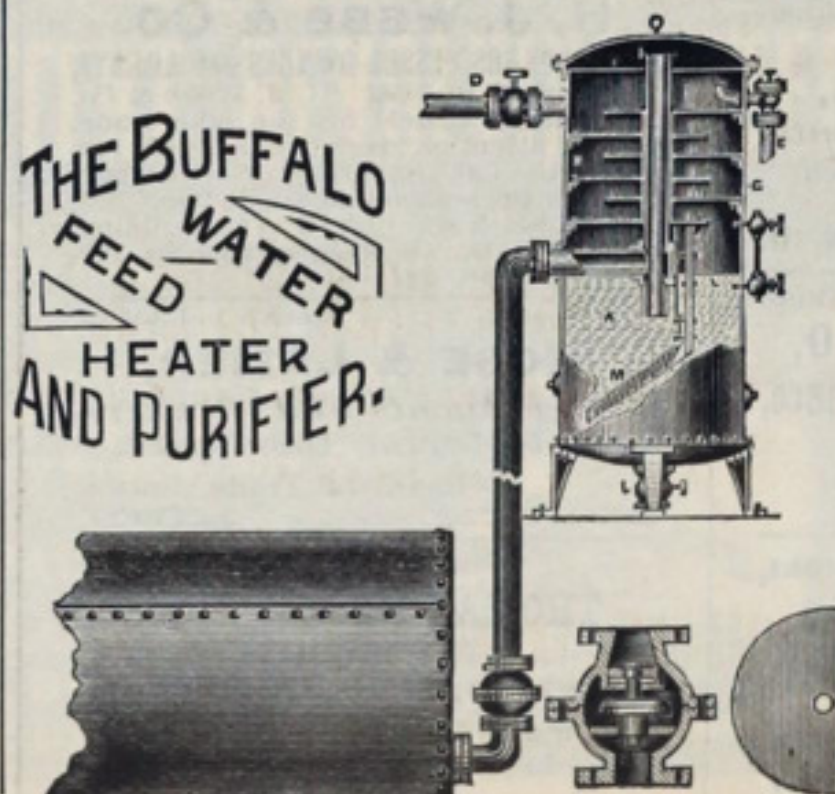
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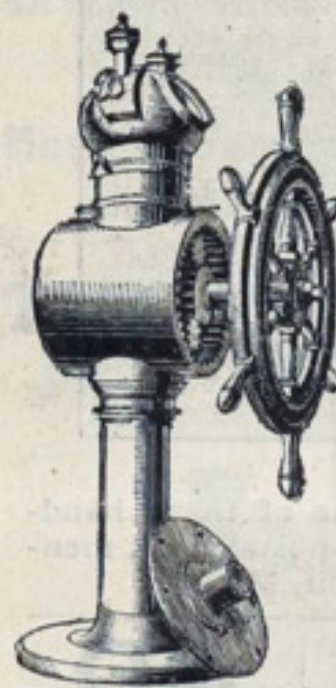
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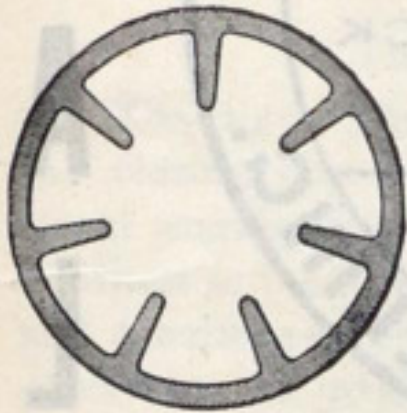
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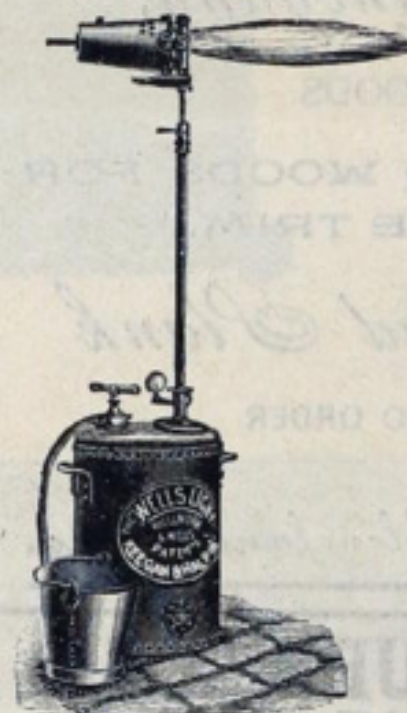
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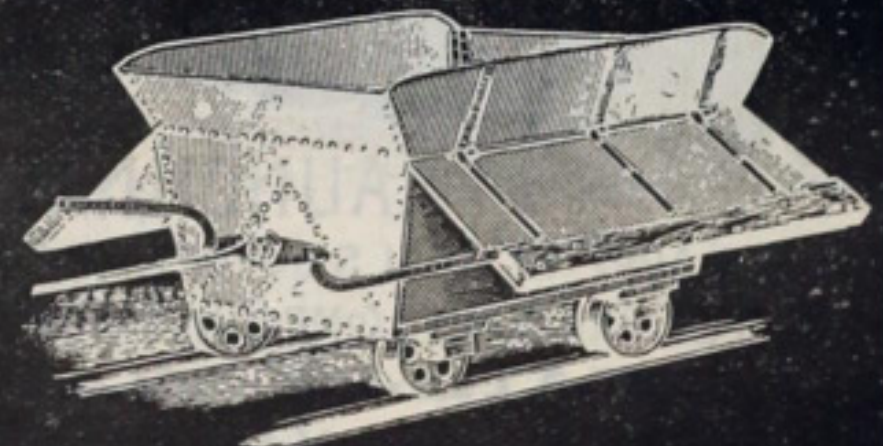
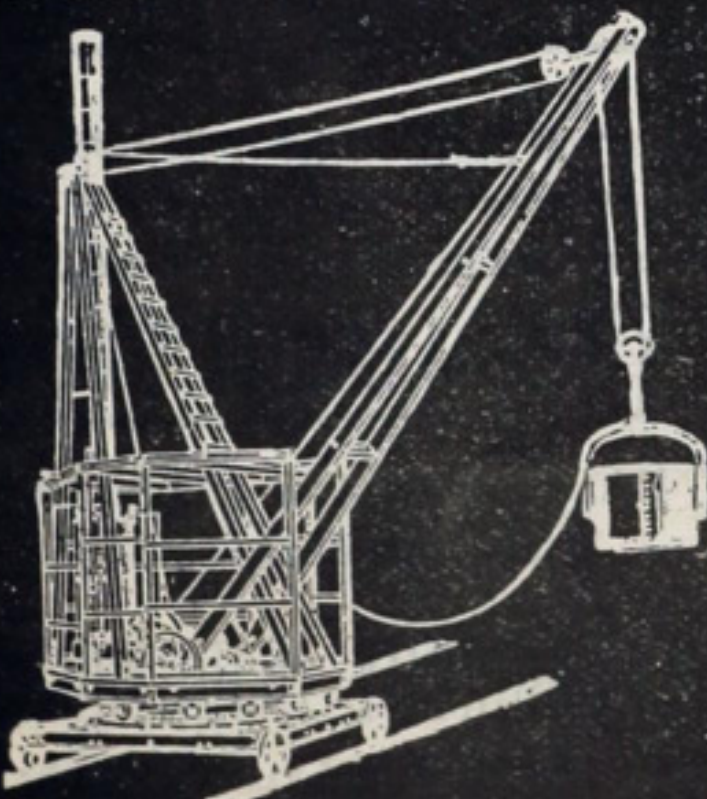
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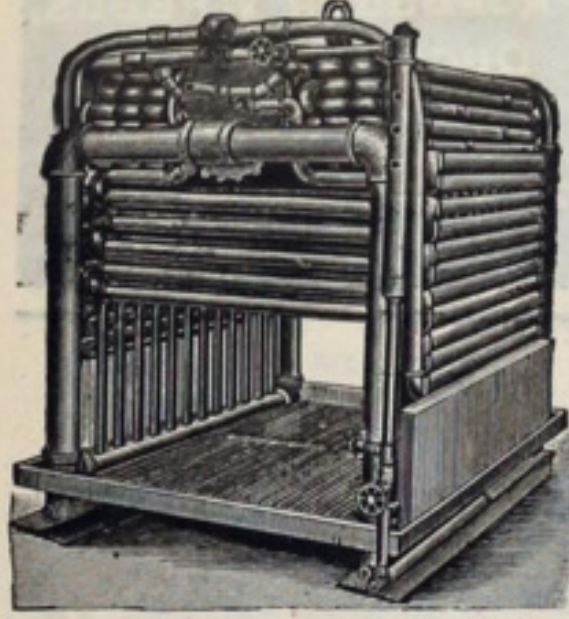
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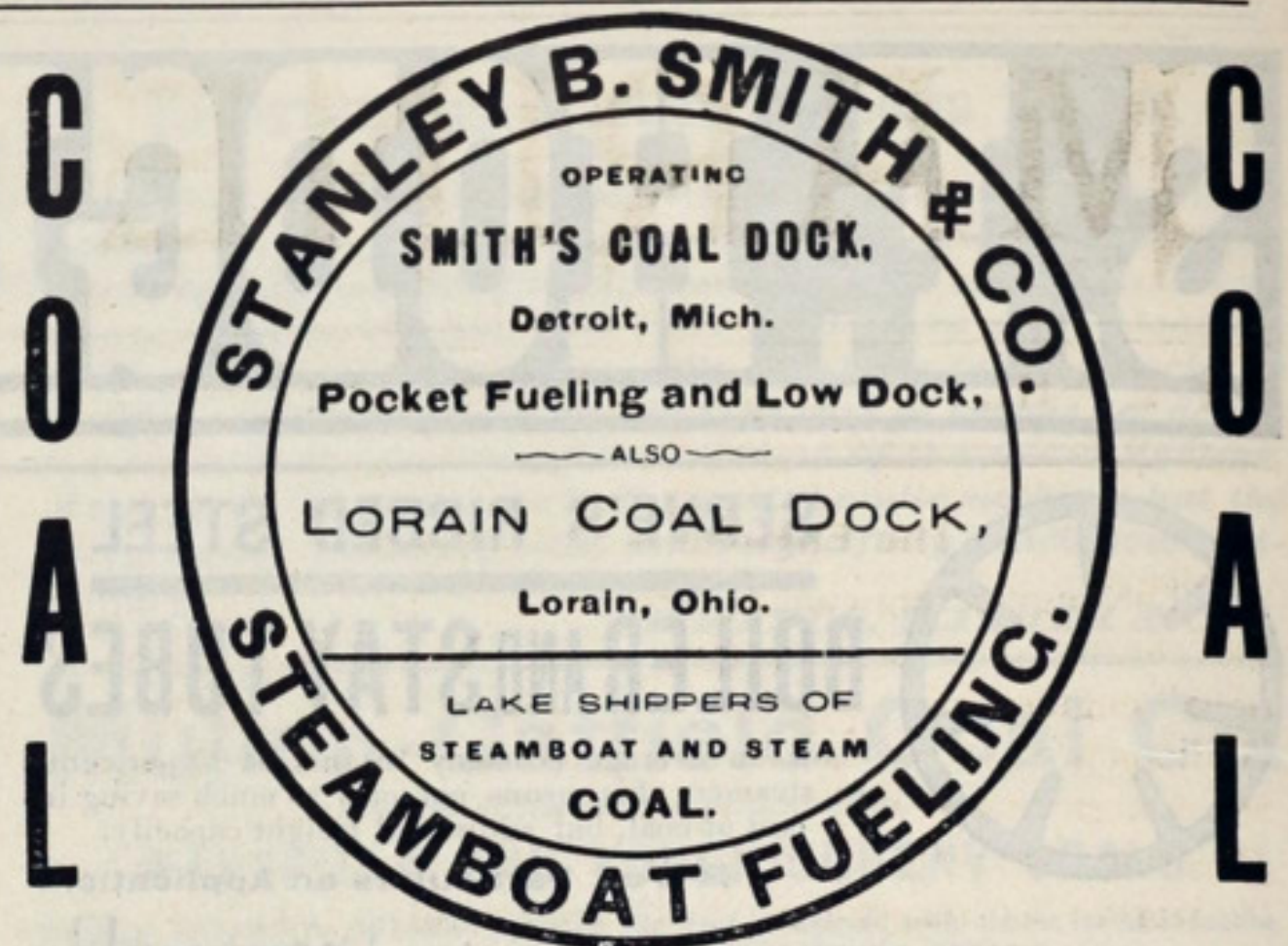
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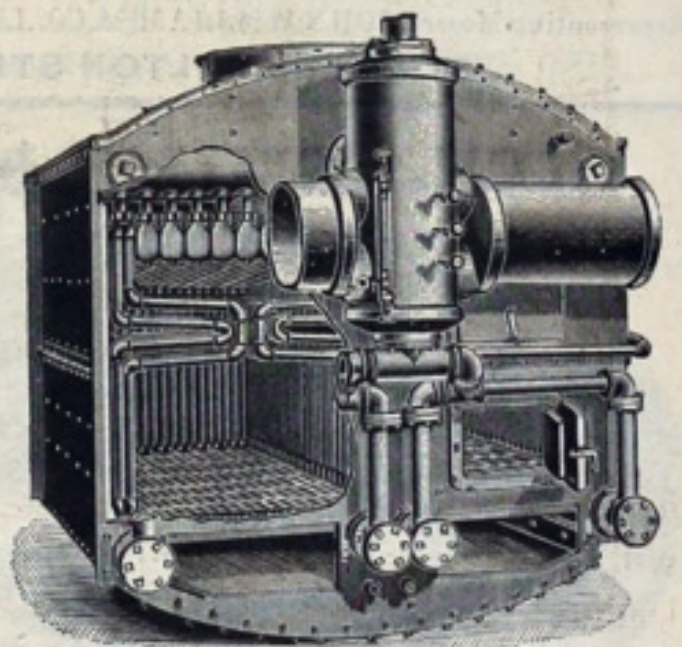
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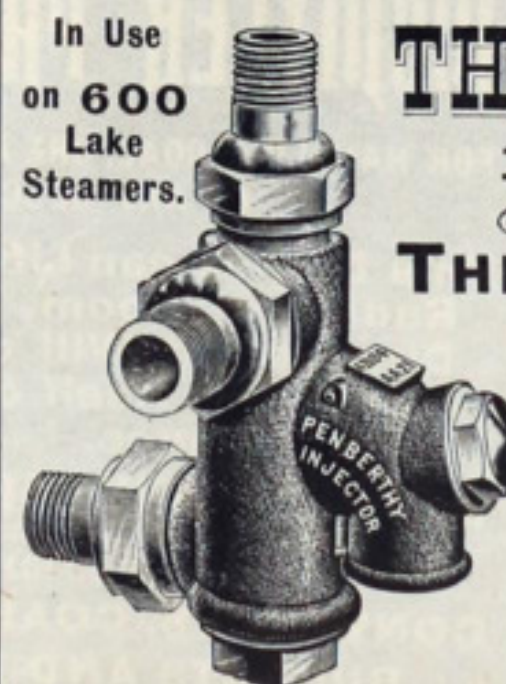
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